1. (Amended Thrice) An apparatus for at least one of particle and chemical analysis of reagent mixtures having a plurality of reagent-mixture components including a sample of blood, comprising:

means for pumping each of a plurality of reagent-mixture components including the sample of blood in a respective stream at a respective predetermined flow rate;

means for combining at least one reagent-mixture component stream into a stream of at least one other reagent-mixture component stream for mixing the plurality of reagent-mixture components into a combined reagent-mixture stream;

means for forming each of a plurality of different selected reagent mixtures in the combined reagent-mixture stream by adjusting the flow rate of at least one of a plurality of reagent-mixture components in accordance with a flow-rate ratio of reagent-mixture components corresponding to each respective selected reagent mixture; and

means for at least one of (i) chemically analyzing and (ii) analyzing a particle distribution of the selected reagent mixture of the combined reagent-mixture stream.

In claim 5, lines 5, 6 and 8, before each instance of the term "species", please insert --animal--.

31. (Amended Thrice) A method for at least one of particle and chemical analysis of reagent mixtures having a plurality of reagent-mixture components including a sample of blood, comprising the steps of:

pumping each of a plurality of reagent-mixture components including the sample of blood in a respective stream at a respective predetermined flow rate;

combining at least one reagent-mixture component stream into at least one other reagent-mixture component stream to mix the plurality of reagent-mixture components and create a combined reagent-mixture stream;

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